



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/706,235

11/12/2003

Claude Basso

RPS920030062US1

6405

45211

7590

10/17/2007

Robert A. Voigt, Jr.

WINSTEAD SECHREST & MINICK PC

PO BOX 50784

DALLAS, TX 75201

EXAMINER

ZHU, BO HUI ALVIN

ART UNIT

PAPER NUMBER

2619

MAIL DATE

DELIVERY MODE

10/17/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

sf

Office Action Summary

Application No.

10/706,235

Applicant(s)

BASSO ET AL.

Examiner

Bo Hui A. Zhu

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 July 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. Claims 1 – 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art (page 1, line 14 – page 4, line 22) in view of Bezzant et al. (US 6,014,717).

(1) with regard to claims 1, 6 and 11:

The admitted prior art discloses a system, comprising: a communications adapter receives a packet of data from an outside network (page 2, line 9); a memory unit coupled to the communications adapter, wherein the memory unit stores a table listing a plurality of transport control blocks (page 2, lines 1 – 3); a TCP protocol stack running on the communications adapter (page 2, lines 7 – 8); a TCP application running on the communications adapter (page 3, line 21); wherein the TCP protocol stack is configured to perform the following programming steps: storing a payload of the packet of data in a buffer in the memory unit (page 3, lines 12 – 14); reading a header of the packet of data to extract a value and indexing in the table using the value (page 2, lines 11 – 14); performing a lock operation on a transport control block in an indexed entry in the table and performing a read operation on the transport control block (page 2, lines 24 – 25); transmitting a notification to the TCP application to read the payload, wherein the notification comprises an address of the transport control block (page 3, lines 20 – 23).

The admitted prior art, however, fails to teach that transmitting the payload of the received packet of data to the TCP application whereby the TCP application does not perform a lock, read, write or unlock operation on the transport control block.

Bezzant et al. discloses a concept that allows data to be directly transferred from the system memory to the peripheral device that requests the data without the peripheral device having to utilize the control of the processor of the system. This method would be desirable because it would improve speed and reduce latency of the data transfer since the operations involved the system processor is bypassed. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply the concept disclosed by Bezzant et al. in the system of the admitted prior art so as to improve speed and reduce latency in transferring data.

(2) with regard to claims 2, 7 and 12:

The admitted prior art further discloses that receiving an invocation of a function call from the TCP application upon the TCP application receiving the notification to read the payload (page 3, lines 24 – 25).

(3) with regard to claims 3, 8 and 13:

The admitted prior art further discloses that performing a write operation on the transport control block (page 3, lines 8 – 13); performing an unlock operation on the transport control block (page 3, lines 15 – 16); and transmitting an acknowledgment to a transmitting network device (page 3, line 18 – 20).

(4) with regard to claims 4, 9 and 14:

The admitted prior art further discloses that transmitting an indication of a change in a size of the buffer to the transmitting network device (page 4, lines 9 – 14).

(5) with regard to claims 5, 10 and 15:

The admitted prior art further discloses that a processor coupled to communications adapter and transmitting the received payload to the processor to be processed (page 4, lines 15 – 16).

Response to Arguments

2. Applicant's arguments filed on July 31, 2007 have been fully considered but they are not persuasive.

The Applicant argues the cited references do not teach or suggest the feature of transmitting payload of the received packet of data to the application whereby the application does not perform a lock, read, write or unlock operation on the transport control block. The Examiner respectfully disagrees. The recited limitation is disclosed in the Bezzant reference. Bezzant teaches (see column 1, lines 16 – 38) using a direct memory access technique to access data from a memory device. The reference teaches a technique that would bypass the operation of the microprocessor during memory access; and by bypassing the microprocessor latency and speed of the data access process would be improved because the operations involving the microprocessor which otherwise would be required would be eliminated. Since a lock, read, write or unlock operations on transport control block as claimed are essentially operations performed by the microprocessor when accessing the memory (transport control block). By bypassing the microprocessor as suggested in the Bezzant reference, it would eliminate the possibility of having to perform a lock, read, write or

unlock operation on the memory block. Therefore, the Examiner believes that the recited limitation is disclosed by the cited reference.

Applicant further argues that the Examiner's motivation for combining the admitted prior art and Bezzant is insufficient to establish a prima facie case of obviousness. The Examiner respectfully disagrees. The reference teaches a technique that would bypass the operation of the microprocessor during memory access; and by bypassing the microprocessor latency and speed of the data access process would be improved because the operations involving the microprocessor which otherwise would be required would be eliminated. Since a lock, read, write or unlock operations on transport control block as claimed are essentially operations performed by the microprocessor when accessing the memory. By bypassing the microprocessor as suggested in the Bezzant reference, it would therefore improve the speed and latency in accessing data from memory. The Examiner believes that a prima facie case has been properly established.

Conclusion

3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the

Art Unit: 2616

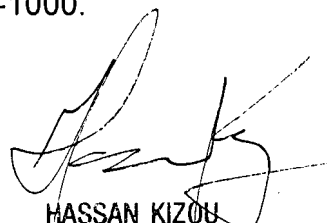
shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bo Hui A. Zhu whose telephone number is (571)270-1086. The examiner can normally be reached on Mon-Thur 10am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on (571)272-3088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BZ
Examiner
October 3, 2007



HASSAN KIZOU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600